REMARKS

In response to the Office Action mailed March 19, 2002, the Applicant respectfully requests that the Examiner enter the above amendments and consider the following remarks. A marked-up version of the changes is attached hereto. Claim 21 has been amended to more clearly describe the invention, and new claims 28-40 have been added. As a result, claims 21-40 are pending in the application. The Applicant respectfully requests further examination and reconsideration of the application in light of the amendments and accompanying remarks.

Rejection of Claims 21-27 Under 35 U.S.C. § 112

The Examiner rejected claims 21-27 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention at the time the application was filed. In particular, the Examiner asserts that a negative limitation requires explicit antecedent basis in the specification. The Applicant respectfully traverses the rejection.

According to MPEP § 2173.05(i), negative limitations in a claim are not inherently ambiguous or uncertain. In Ex parte Parks, 30 U.S.P.Q.2d 1234 (1993), the Board of Patent Appeals and Interferences ruled that an adequate description under 35 U.S.C. § 112, first paragraph, does not require literal support of the claimed invention. A copy of the case is enclosed for your convenience. The Board of Patent Appeals and Interferences further declared that the lack of literal support clearly does not, in and of itself, establish a prima facie case for lack of adequate descriptive support under 35

U.S.C. § 112, first paragraph. Accordingly, the Applicant respectfully submits that the Examiner has not supplied proper foundation for the rejection.

In Ex parte Parks, the Board of Patent Appeals and Interferences ruled that it is sufficient if the description reasonably conveys to one of ordinary skill in the art that the inventor had possession of the subject matter that is now claimed. In that case, the Board of Patent Appeals and Interferences placed great weight on the fact that the description did not discuss the excluded subject matter (i.e., a catalyst) in a section that would typically discuss the subject matter (i.e., the catalyst) if it were used. In particular, the Board of Patent Appeals and Interferences stated: "Throughout the discussion which would seem to cry out for a catalyst if one were used, no mention is made of a catalyst." It is significant that this analysis was set forth in the same paragraph in which the Board of Patent Appeals and Interferences stated that it is not unmindful of the decision in Ex parte Grasselli, 231 U.S.P.Q. 393 (1983), the case that was cited by the Examiner.

In the present case, the method of making a cellulosic/polymer product is set forth on page 7, lines 12-18, of the specification. Similar to the facts in Ex parte Parks, the need for a pelletizing step would have been discussed therein if necessary. Therefore, based on Ex parte Parks, the Applicant respectfully submits that claims 21-27 are described in accordance with 35 U.S.C. § 112, first paragraph. Nevertheless, in order to expedite the prosecution of this case, the Applicant has amended claim 21 to positively claim the limitation. Therefore, the Applicant respectfully submits that the rejection under 35 U.S.C. § 112, first paragraph, has been overcome.

Double Patenting

The Examiner rejected claims 1-13 under the judicially created doctrine of obviousness-type double patent as being unpatentable over claims 1-6 of U.S. Patent No. 6,011,091 and over claims 1-8 of U.S. Patent No. 6,103,791. The Applicant respectfully requests the Examiner to hold the double patenting rejections in abeyance until such time that allowable subject matter is indicated.

Rejection of Claims 1-13 Under 35 U.S.C. §§ 102(e) and 103(a)

The Examiner rejected claims 1-13 under 35 U.S.C. § 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Cope '016, Cope '927, or Cope '680, in view of Waki et al. or Brandt. The Applicant respectfully traverses the rejection.

The Applicant respectfully submits that the rejection under 35 U.S.C. § 102(e) is improper because it is based on one of the Cope references in view of Waki et al. or Brandt. Presumably, the Examiner intended to base the rejection solely on one of the Cope references. Nevertheless, the Applicant has canceled claims 1-13 without prejudice. Therefore, the Applicant respectfully submits that the rejection of claims 1-13 under 35 U.S.C. §§ 102(e) and 103(a) is now moot.

Rejection of Claims 21-27 Under 35 U.S.C. § 102(b)

The Examiner rejected claims 21-27 under 35 U.S.C. § 102(b) as being anticipated by Laver. The Applicant respectfully traverses the rejection. Although Laver mentions polypropylene as an example of a thermoplastic material, Laver does not teach or suggest any combination of ingredients that may be used to make a cellulosic/polypropylene composite. It should be noted that the examples given in

columns 7 and 8 of Laver are for cellulosic/polyethylene composites. Laver does not teach or suggest that polypropylene may be substituted for polyethylene in these examples. In light of the physical differences between polypropylene and polyethylene, the Applicant respectfully submits that an assumption cannot be properly made that polypropylene may be successfully substituted in these examples. Therefore, the Applicant respectfully submits that Laver cannot support the rejection of claims 21-27 under 35 U.S.C. § 102(b).

Rejection of Claims 21-27 Under 35 U.S.C. § 103(a)

The Examiner rejected claims 21-27 under 35 U.S.C. § 103(a) as being unpatentable over Bistak et al., Motegi et al., Woodhams, or Malucelli et al. In making the rejection, the Examiner anticipated the deletion of the limitation that is asserted to be new matter. The Applicant respectfully traverses the rejection. As discussed above, the Applicant has overcome the rejection under 35 U.S.C. § 112, first paragraph, by positively claiming the limitation that the composite is directly transferred to the extruder after the ingredients are mixed together. Accordingly, this embodiment of the present invention eliminates a pelletizing step before the composite is extruded through a die to form the final net shape of a product. Therefore, in light of the other shortcomings that have been pointed out about the references in earlier responses, the Applicant respectfully submits that neither Bistak et al., Motegi et al., Woodhams, nor Malucelli et al. can support the rejection of claims 21-27 under 35 U.S.C. § 103(a).

New Claims

The Applicant has added new claims 28 through 40 for another method of manufacturing a cellulosic/polymer product. It should be noted that each of the Cope

references require a pelletizing step prior to the formation of the final shape of a product. Waki et al. and Brandt may not be combined with any of the Cope references because each of the Cope references teaches against any method that eliminates a pelletizing step. Furthermore, it should be recognized that Waki et al. and Brandt do not teach or suggest the composite used to make the product. Therefore, the Applicant respectfully submits that claims 28-40 are in condition for allowance.

CONCLUSION

The Applicant has distinguished claims 28-40 over the cited references. Therefore, the Applicant respectfully submits that the present application is now in condition for allowance, and such action is earnestly requested.

Respectfully submitted,

Date: 9/19/02

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please amend the following claims:

21. (amended) A method of manufacturing a cellulosic/polymer product, said method consisting essentially of:

mixing together a composite consisting essentially of:

(a) at least one cellulosic filler in an amount of about 30% to about 70% by weight of said composite; and

(c) at least one polypropylene material in an amount of about 30% to about 70% by weight of said composite, said at least one polypropylene material comprised of at least one lubricant in an amount of about 10 to about 20 parts per 100 parts of a polypropylene resin;

transferring said composite directly to an extruder ~~excluding a pelletizing step~~; and

extruding said composite through a die to form a final shape.

Please add the following new claims:

28. (new) A method of manufacturing a cellulosic/polymer product, said method consisting essentially of:

mixing together a composite consisting essentially of:

(a) at least one cellulosic filler in an amount of about 30% to about 60% by weight of said composite; and

(b) at least one polyvinyl chloride material in an amount of about 40% to about 70% by weight of said composite, said at least one polyvinyl chloride material comprised of at least one stabilizer in an amount of about 1 to about 10 parts per 100 parts of a polyvinyl chloride resin, at least one lubricant in an amount of about 2 to about 12 parts per 100 parts of said polyvinyl chloride resin, and at least one process aid in an amount of about 0.5 to about 8 parts per 100 parts of said polyvinyl chloride resin;

transferring said composite directly to an extruder; and

extruding said composite through a die to form a final shape.

29. (new) The method of claim 28 wherein said at least one cellulosic filler is in an amount of about 40% to about 50% by weight of said composite.

30. (new) The method of claim 29 wherein said at least one cellulosic filler is in an amount of about 48% to about 50% by weight of said composite.

31. (new) The method of claim 28 wherein said at least one cellulosic filler is wood flour.

32. (new) The method of claim 28 wherein said at least one polyvinyl chloride material is in an amount of about 50% to about 60% by weight of said composite.

33. (new) The method of claim 32 wherein said at least one polyvinyl chloride material is in an amount of about 50% to about 52% by weight of said composite.

34. (new) The method of claim 28 wherein said polyvinyl chloride resin of said at least one polyvinyl chloride material has an inherent viscosity of about 0.6 to about 1.1.

35. (new) The method of claim 34 wherein said polyvinyl chloride resin of said at least one polyvinyl chloride material has an inherent viscosity of about 0.7 to about 0.9.

36. (new) The method of claim 28 wherein said at least one stabilizer is in an amount of about 3 to about 5 parts per 100 parts of said polyvinyl chloride resin.

37. (new) The method of claim 28 wherein said at least one lubricant is in an amount of about 4 to about 8 parts per 100 parts of said polyvinyl chloride resin.

38. (new) The method of claim 28 wherein said at least one process aid is in an amount of about 1 to about 3 parts per 100 parts of said polyvinyl chloride resin.

39. (new) The method of claim 28 wherein said at least one polyvinyl chloride material further consists essentially of at least one inorganic filler in an amount up to about 10 parts per 100 parts of said polyvinyl chloride resin.

40. (new) The method of claim 28 wherein:

said at least one cellulosic filler is in an amount of about 40% to about 50% by weight of said composite; and

said at least one polyvinyl chloride material is in an amount of about 50% to about 60% by weight of said composite, said at least one polyvinyl chloride material being comprised of said at least one stabilizer in an amount of about 3 to about 5 parts per 100 parts of said polyvinyl chloride resin, said at least one lubricant in an amount of about 4 to about 8 parts per 100 parts of said polyvinyl chloride resin, and said at least one process aid in an amount of about 1 to about 3 parts per 100 parts of said polyvinyl chloride resin.

LEXSEE 30 uspq2d 1234

Ex parte Robert E. Parks and Robert L. Marietta

Application filed May 31, 1991, Serial No. 708,810, which is a continuation of Serial No. 340,540, filed April 18, 1989, abandoned, for the reissue of Patent No. 4,018,562, granted April 19, 1977, based on application Serial No. 625,510, filed October 24, 1975. Chemiluminescent Nitrogen Detection Apparatus and Method.

Primary Examiner - Jill Johnston.

Board of Patent Appeals and Interferences

1993 Pat. App. LEXIS 27; 30 U.S.P.Q.2D (BNA) 1234

July 15, 1993, Heard

September 2, 1993, Decided

January 4, 1994, Released

[*1]

Before Calvert, Vice Chairman, and Steiner and Tarring, Examiners-in-Chief.

OPINIONBY: STEINER

OPINION:

Steiner, Examiner-in-Chief.

This is an appeal from the final rejection of claims 1 through 10, 20 through 22 and 55 through 106, all the claims in this application for reissue of Patent No. 4,018,562 (the '562 patent).

THE INVENTION

The claimed invention is a method for determining the nitrogen content of a sample comprising manipulative steps which include decomposing the sample in an oxygen/inert gas atmosphere at an elevated temperature to obtain nitric oxide and causing the generated nitric acid to undergo a chemiluminescent reaction with ozone.

Claims 1, 81 and 94 are illustrative and read as follows:

1. The method for determining the total chemically combined nitrogen content of a sample comprising the steps:

a. decomposing said sample in one step in the presence of an oxygen-rich atmosphere of oxygen and an inert gas and at a temperature sufficiently above 700 degrees C. that substantially all of the chemically bound nitrogen is

recovered as nitric oxide (NO), such decomposition being conducted in the absence of a catalyst,

b. causing the nitric oxide produced bysuch decomposition [*2] to undergo a chemiluminescent reaction with ozone, and

c. determining the magnitude of the chemiluminescent reaction to indicate the quantity of chemically combined nitrogen in said sample.

81. A method for determining the total chemically combined nitrogen content of a sample, said method comprising the steps of:

(a) decomposing said sample in one step, said decomposing step consisting essentially of decomposing said sample in the presence of an oxygen-rich atmosphere of oxygen and an inert gas and at a temperature sufficiently above 700 degrees C that substantially all of the chemically bound nitrogen is recovered as nitric acid (NO);

(b) causing the nitric oxide produced by such decomposition to undergo a chemiluminescent reaction with ozone; and

(c) determining the magnitude of the chemiluminescent reaction to indicate the quantity of chemically combined nitrogen in said sample.

94. A method for determining the total chemically combined nitrogen content of a sample, said method comprising the steps of:

(a) decomposing said sample in one step in the presence of an oxygen-rich atmosphere of oxygen and an inert gas and at a temperature sufficiently [*3] above 700 degrees C that substantially all of the chemically bound nitrogen is recovered as nitric oxide (NO) according to the formula:

R - N + O[2] --> CO[2] + H[2]O + NO

(b) causing the nitric oxide produced by such decomposition to undergo a chemiluminescent reaction with ozone; and

(c) determining the magnitude of the chemiluminescent reaction to indicate the quantity of chemically combined nitrogen in said sample.

THE REJECTIONS

Claims 1 through 10, 20 through 22 and 55 through 80 stand rejected under the first paragraph of *35 U.S.C. 112* for lack of adequate descriptive support. Claims 81 through 106 stand rejected under *35 U.S.C. 251* in that they are broader than the originally patented claims. n1 In addition, all the appealed claims stand rejected under *35 U.S.C. 251* for lack of the requisite "error."

n1 The ultimate paragraph of *35 U.S.C. 251* reads as follows:

No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent.

The rejection under the first paragraph of *35 U.S.C. 112*, the rejection of claims 94 through106 under *35 U.S.C. 251* as broader [*4] than the original claims, and the rejection of all the appealed claims under *35 U.S.C. 251* for lack of the requisite "error" are reversed; the rejection of claims 81 through 93 under *35 U.S.C. 251* as broader than the original claims is affirmed.

OPINION

The Rejection of Claims 1 through 10, 20 through 22 and 55 through 80 under the first paragraph of *35 U.S.C. 112*.

The initial burden of establishing a prima facie basis to deny patentability to a claimed invention on any ground is always upon the examiner. *In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992)*. In rejecting a claim under the first paragraph of *35 U.S.C. 112* for lack of adequate descriptive support, it is incumbent upon the examiner to establish that the originally-filed disclosure would not have reasonably conveyed to one having ordinary skill in the art that an appellant had possession of the now claimed subject matter. *Wang Laboratories, Inc. v. Toshiba Corp., 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993)*. Adequate description under the first paragraph of *35 U.S.C. 112* does not require literal support for the claimed invention. In *re Herschler, 591 F.2d 693, 200 USPQ* **[*5]** *711 (CCPA 1979); In re Edwards, 568 F.2d 1349, 196 USPQ 465 (CCPA 1978); In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)*. Rather, it is sufficient if the originally-filed disclosure would have conveyed to one having ordinary skill in the art that an appellant had possession of the concept of what is claimed. *In re Anderson, 471 F.2d 1237, 176 USPQ 331 (CCPA 1973)*.

The examiner contends that the rejected claims lack adequate descriptive support because there is "no literal basis for the" n2 claim limitation "in the absence of a catalyst." Clearly, the observation of a lack of literal support does not, in and of itself, establish a prima facie case for lack of adequate descriptive support under the first paragraph of *35 U.S.C. 112. In re Herschler, supra; In re Edwards, supra; In re Wertheim, supra*.

n2 See page 4 of the Answer, second full paragraph, line 4, and page 7 thereof, last two lines.

The examiner notes that in *Parks v. Fine, 773 F.2d 1577, 227 USPQ 432 (Fed. Cir. 1985)*, involving the claimed subject matter, the limitation "in the absence of a catalyst" was considered material. Suffice it to say, no issue under the first paragraph of **[*6]** *35 U.S.C. 112* for lack of adequate descriptive support for the limitation "in the absence of a catalyst" was before the court.

We are not unmindful of the decision in *Ex parte Grasselli, 231 USPQ 393 (Bd.App. 1983)* aff'd mem., *738 F.2d 453 (Fed. Cir. 1984)*, which involved claims to a process for the ammoxidation of propane or isobutane employing a catalyst "free of uranium and the combination of vanadium and phosphorus." Under the particular facts in that case, it was held that the negative limitation introduced new concepts in violation of the description requirement of the first paragraph of *35 U.S.C. 112*, citing *In re Anderson, supra*. In the situation before us, n3 it cannot be said that the originally-filed disclosure would not have conveyed to one having ordinary skill in the art that appellants had possession of the concept of conducting the decomposition step generating nitric acid in the absence of a catalyst. See, for example, column 5 of the '562 patent, first paragraph, wherein FIG. 4 is discussed. Pyrolysis temperatures of between 600 degrees C and 700 degrees C, and above 700 degrees C were employed to achieveconversion of chemically bound nitrogen **[*7]** to nitric oxide. Smooth conversion was obtained above 700 degrees C, while the optimum conversion was found to occur above 900 degrees C. Throughout the discussion which would seem to cry out for a catalyst if one were used, no mention is made of a catalyst. n4

n3 Whether the requirement for an adequate written description has been met is a question of fact and, hence, driven by the exigencies of each case. *Wang*

Laboratories, Inc. v. Toshiba Corp., 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

n4 A "catalyst" normally functions to accelerate a particular reaction. See for example, Hawley, Condensed Chemical Dictionary, Tenth Edition, 1981, pp. 205 and 206, copies of which are enclosed for appellants' convenience and made of record.

Moreover, according to two declarations by Wentworth, a professor of chemistry at the University of Houston, whose expertise in this particular art has not been challenged, one having ordinary skill in the art would have recognized that the reaction generating nitric oxide, according to the equation disclosed in the '562 patent, is conducted without a catalyst. See *Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 19 USPQ2d 1111 (Fed.* **[*8]** *Cir. 1991); In re Lemin, 364 F.2d 864, 150 USPQ 546 (CCPA 1966)*. Thus, it cannot be said that the originally-filed disclosure would not have conveyed to one having ordinary skill in the art the concept of effecting decomposition at an elevated temperature in the absence of a catalyst. *In re Anderson, supra*.

Accordingly, the examiner's rejection of claims 1 through 10, 20 through 22 and 55 through 80 under the first paragraph of *35 U.S.C. 112* for lack of adequate descriptive support is reversed.

The Rejection of Claims 81 through 106 under *35 U.S.C. 251* as Broader than the Original Claims.

We initially observe that on page 6 of the Brief,

appellants agree that any claim in the reissue application that does not contain a limitation that means "in the absence of a catalyst" is broader than original claims 1-10 and hence unpatentable under *35 USC 251* (appellants' emphasis).

Claims 81 through 106 do not contain a negative limitation which expressly precludes the presence of a catalyst. However, appellants contend that claims 81 through 93 exclude the presence of a catalyst by virtue of the phrase "consistingessentially of" in characterizing the decomposition step, **[*9]** and that claims 94 through 106 exclude the presence of a catalyst by virtue of the recited equation for the decomposition reaction, which equation does not reflect the presence of a catalyst.

In our opinion, the phrase "consisting essentially of," as employed in claims 81 through 93, limits decomposition to a single step and, in that sense, is redundant since decomposition is performed "in one step." However, it is not apparent and appellants have not explained why the expression "consisting essentially of" excludes the presence of a catalyst during the recited decomposition step. n5 It would, therefore, appear that claims 81 through 93 are broader than original claims 1 through 10 and, hence, were properly rejected by the examiner under *35 U.S.C. 251*. Accordingly, the examiner's rejection of claims 81 through 93 under *35 U.S.C. 251* is affirmed.

n5 Compare *Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261, 229 USPQ 805, 812,* note 6 (Fed. Cir. 1986).

Claims 94 through 106 recite the decomposition reaction in a manner which, according to the Wentworth declarations, means that no catalyst was employed. *In re Lemin, supra*. Accordingly, claims 94 through 106 would not **[*10]** appear

broader than original claims 1 through 10 and, hence, the examiner's rejection of claims 94 through 106 under *35 U.S.C. 251* is reversed.

The Rejection of the Appealed Claims Under *35 U.S.C. 251* for Lack of the Requisite Error.

This rejection is reversed essentially for the reasons advocated by appellants on appeal. We emphasize that the practice of submitting claims as a hedge against the possible invalidity of original claims has been judicially sanctioned. See, for example, *Hewlett-Packard Co. v. Bausch & Lomb, Inc., 882 F.2d 1556, 11 USPQ2d 1750 (Fed. Cir. 1989); In re Altenpohl, 500 F.2d 1151, 183 USPQ 38 (CCPA 1974); In re Handel, 312 F.2d 943, 136 USPQ 460 (CCPA 1963).*

In summary, the examiner's rejection of claims 81 through 93 is affirmed; the rejection of claims 1 through 10, 20 through 22, 55 through 80 and 94 through 106 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a). See the final rule notice, *54 F.R. 29548 (July 13, 1989), 1105 O.G. 5* (August 1, 1989).

AFFIRMED-IN-PART